

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTAYKC1621

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page for STN Seminar Schedule - N. America
NEWS 2 NOV 21 CAS patent coverage to include exemplified prophetic
substances identified in English-, French-, German-,
and Japanese-language basic patents from 2004-present
NEWS 3 NOV 26 MARPAT enhanced with FSORT command
NEWS 4 NOV 26 CHEMSAFE now available on STN Easy
NEWS 5 NOV 26 Two new SET commands increase convenience of STN
searching
NEWS 6 DEC 01 ChemPort single article sales feature unavailable
NEWS 7 DEC 12 GBFULL now offers single source for full-text
coverage of complete UK patent families
NEWS 8 DEC 17 Fifty-one pharmaceutical ingredients added to PS
NEWS 9 JAN 06 The retention policy for unread STNmail messages
will change in 2009 for STN-Columbus and STN-Tokyo
NEWS 10 JAN 07 WPIDS, WPINDEX, and WPIX enhanced Japanese Patent
Classification Data
NEWS 11 FEB 02 Simultaneous left and right truncation (SLART) added
for CERAB, COMPUAB, ELCOM, and SOLIDSTATE
NEWS 12 FEB 02 GENBANK enhanced with SET PLURALS and SET SPELLING
NEWS 13 FEB 06 Patent sequence location (PSL) data added to USGENE
NEWS 14 FEB 10 COMPENDEX reloaded and enhanced
NEWS 15 FEB 11 WTEXTILES reloaded and enhanced
NEWS 16 FEB 19 New patent-examiner citations in 300,000 CA/CAPLUS
patent records provide insights into related prior
art
NEWS 17 FEB 19 Increase the precision of your patent queries -- use
terms from the IPC Thesaurus, Version 2009.01

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

All use of STN is subject to the provisions of the STN Customer
agreement. Please note that this agreement limits use to scientific
research. Use for software development or design or implementation

of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 17:17:51 ON 19 FEB 2009

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.22

0.22

FILE 'CAPLUS' ENTERED AT 17:18:04 ON 19 FEB 2009

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 19 Feb 2009 VOL 150 ISS 8

FILE LAST UPDATED: 18 Feb 2009 (20090218/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s (tert (w) butanol) (s) solvent

289064 TERT

22 TERTS

289068 TERT

(TERT OR TERTS)

74393 BUTANOL

965 BUTANOLS

74724 BUTANOL

(BUTANOL OR BUTANOLS)

770099 SOLVENT

368060 SOLVENTS

960315 SOLVENT

(SOLVENT OR SOLVENTS)

L1 1152 (TERT (W) BUTANOL) (S) SOLVENT

=> s l1 and tranesterif?

L2 40 TRANESTERIF?
0 L1 AND TRANESTERIF?

=> s l1 and esterification
106659 ESTERIFICATION
623 ESTERIFICATIONS
106826 ESTERIFICATION
(ESTERIFICATION OR ESTERIFICATIONS)

L3 43 L1 AND ESTERIFICATION

=> s l3 and (fat# or oil#)
334864 FAT#
993936 OIL#

L4 3 L3 AND (FAT# OR OIL#)

=> d l4 1-3 ibib abs

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2009 ACS on SIN

ACCESSION NUMBER: 2008:1474266 CAPLUS

DOCUMENT NUMBER: 150:101745

TITLE: Comparison of Novozym 435 and Amberlyst 15 as
Heterogeneous Catalyst for Production of Biodiesel
from Palm Fatty Acid Distillate

AUTHOR(S): Talukder, M. M. Rahman; Wu, J. C.; Lau, S. K.; Cui, L.
C.; Shimin, G.; Lim, A.

CORPORATE SOURCE: Institute of Chemical and Engineering Sciences, Jurong
Island, Singapore, 627833, Singapore

SOURCE: Energy & Fuels (2008), 23(1), 1-4

CODEN: ENFUEM; ISSN: 0887-0624

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Palm fatty acid distillate (PFAD), a byproduct from the palm oil refinery process, has been used as an alternative feedstock for biodiesel (BD) production via homogeneous acid-catalyzed esterification. This process suffers from poor catalyst recovery, wastewater treatment and BD purification. To minimize the problem, heterogeneous catalysts, Novozym 435 (immobilized *Candida antarctica* lipase B) and Amberlyst 15 (acidic styrene-divinylbenzene sulfonated ion-exchange resin), were tested and their catalytic activities under various reaction conditions are compared. Novozym 435 acts fast and its optimal specific activity (g BD/h/g catalyst) is 50 times higher than that of Amberlyst 15. The maximum BD yields obtained using Novozym 435 and Amberlyst 15 are 95 and 97%, resp. Both catalysts are recycled >15 cycles without losing their activities. Probably both Novozym 435 and Amberlyst 15 can be used for BD production from PFAD.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on SIN

ACCESSION NUMBER: 2007:1474809 CAPLUS

DOCUMENT NUMBER: 148:288256

TITLE: *Rhizopus oryzae* Whole-Cell-Catalyzed Biodiesel
Production from Oleic Acid in tert-Butanol Medium

AUTHOR(S): Li, Wei; Du, Wei; Liu, Dehua

CORPORATE SOURCE: Department of Chemical Engineering, Tsinghua
University, Beijing, 100084, Peop. Rep. China

SOURCE: Energy & Fuels (2008), 22(1), 155-158
 CODEN: ENFUEM; ISSN: 0887-0624
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB During the usage of *Rhizopus oryzae* whole cell instead of immobilized enzyme for biodiesel production, the intracellular lipase has 1,3-positional specificity when used to catalyze methanolysis of triglycerides. Thus, the application of *R. oryzae* whole cell in biodiesel production from triglycerides is restrained to some extent. However, it might be a promising catalyst for biodiesel production from free fatty acids (FFAs). *R. oryzae* IFO4697 whole cell [immobilized within biomass support particles (BSPs)] catalyzed biodiesel production from oleic acid was studied systematically. In a tert-butanol system, *R. oryzae* whole cell exhibited both better methanol endurance and better stability than that in a solvent-free system. Mol. sieves (3 A) were added into the reaction mixture to online remove the produced water, and a much higher biodiesel yield could be achieved (biodiesel yield reached 90% at 48 h).

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1987:476138 CAPLUS
 DOCUMENT NUMBER: 107:76138
 ORIGINAL REFERENCE NO.: 107:12529a,12532a
 TITLE: Enzymic manufacture of diglycerides
 INVENTOR(S): Tsunoda, Akira; Kokusho, Sumitaka; Machida, Haruo; Iwasaki, Shinjiro
 PATENT ASSIGNEE(S): Meito Sangyo Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 62025987 | A | 19870203 | JP 1985-162966 | 19850725 |
| PRIORITY APPLN. INFO.: | | | JP 1985-162966 | 19850725 |

AB A mixture containing glycerin (0.5-1.0 mol) and 1 mol C4-22 saturated or unsatd. fatty acids or their C1-3 alc. esters is subjected to dehydration (to <1% water content) and reacted with alkaline lipase from microorganisms in the presence or absence of an organic solvent (with exception of primary alcs.) to produce diglycerides in high yield. Thus, oleic acid 10, glycerin 1.96, PL679 lipase 3, mol. sieves 3A 20 g, and 100 mL Me3COH, were reacted at 40° for 72 h with shaking. After centrifugation, the supernatant was concentrated to obtain 10.5 g glycerin oleate. The glycerin oleate composition consisted of 23% glycerin monooleate, 50% glycerin dioleate (45% glycerin 1,3-dioleate, 13% glycerin 1,2-dioleate) and 9% glycerin trioleate.

=> d his

Serial No.: 10/597123

(FILE 'HOME' ENTERED AT 17:17:51 ON 19 FEB 2009)

FILE 'CAPLUS' ENTERED AT 17:18:04 ON 19 FEB 2009

| | |
|----|---------------------------------------|
| L1 | 1152 S (TERT (W) BUTANOL) (S) SOLVENT |
| L2 | 0 S L1 AND TRANESTERIF? |
| L3 | 43 S L1 AND ESTERIFICATION |
| L4 | 3 S L3 AND (FAT# OR OIL#) |

=> lob off

LOB IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> log off

ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF

LOGOFF? (Y)/N/HOLD:y

STN INTERNATIONAL LOGOFF AT 17:21:40 ON 19 FEB 2009